



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,192	06/05/2006	Rolf Stromberg	STOCP0140US	6458

7590 07/20/2011  
Don W Bulson  
Renner Otto Boisselle & Sklar  
1621 Euclid Avenue  
19th Floor  
Cleveland, OH 44115

EXAMINER
----------

LAM, VINH TANG

ART UNIT	PAPER NUMBER
----------	--------------

2629

MAIL DATE	DELIVERY MODE
-----------	---------------

07/20/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,192	<b>Applicant(s)</b> STROMBERG, ROLF	
	<b>Examiner</b> VINH LAM	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 4-9,11,12,16,17 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,10,13-15,18,20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims **1-3, 13-15, 18, and 20-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Oberg (US Patent No. 5270690)** in view of **Cunningham et al. (US PGPub. No. 2001/0016804)**.

Regarding Claim **1**, (currently amended) a loop for pointing devices for guiding a cursor on a computer screen or the like, comprising:

a flexible fabric (*Col. 3, Ln. 54-57, FIG. 5, i.e. relatively **non-extensible material***) support material (*Col. 3, Ln. 53-54, FIGs. 3-5, i.e. rotatable belts or bands 18; Col. 6, Ln. 43, FIGs. 13-14, i.e. flexible wires 58*) in the form of a cylinder (*Col. 3, Ln. 55, FIG. 5, i.e. **oblong-shaped***) having a longitudinal axis (*Col. 4, Ln. 48-51, FIG. 5*) and capable of being axially moved (*Col. 3, Ln. 66-68, Col. 4, Ln. 1, FIG. 5*) and circumferentially rotated around two axially oriented supports (*Col. 3, Ln. 63-66, FIG. 4, i.e. belt segments 56*) that extend parallel to the longitudinal axis (*FIG. 5*) for stretching a cross-section of the loop to an oval shape (*Col. 3, Ln. 51-59, FIG. 5, i.e. **oblong-shaped***),

said flexible fabric support material having on an external surface thereof a number of mutually circumferentially spaced apart friction elements (*Col. 6, Ln. 58-68, FIG. 16, i.e. pad 64*);

said stiffening strips or equivalent means being made of a relatively low friction material for low friction sliding (*Col. 6, Ln. 15-27, FIGs. 10-16, i.e. wheels 50; Col. 6, Ln. 58-68, FIG. 16, i.e. strip 66*) on a support surface (*Col. 3, Ln. 44-47, FIGs. 1-2, i.e. core 12*), and said friction elements being made of a relatively high friction material for providing high friction engagement by a user's finger (*Col. 6, Ln. 58-68, FIG. 16, i.e. pad 64*); and

said flexible fabric support material having on an internal surface thereof a number of mutually circumferentially spaced apart, axially elongated, stiffening strips or equivalent means (*Col. 6, Ln. 15-27, FIGs. 10-16, i.e. wheels 50; Col. 6, Ln. 58-68, FIG. 16, i.e. strip 66*) substantially parallel to the longitudinal axis for stiffening the loop in its axial direction (*Col. 3, Ln. 43, FIGs. 13-14, i.e. belt segments 56*).

Although **Oberg's** specification and drawings do not *explicitly teach* and *conclusively illustrate*, respectively, the stiffening strips or equivalent means having an axial length, greater than the collective circumferential widths of a plurality of stiffening strips or equivalent means.

However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to *modify the size and shape* of **Oberg's** loop means (*FIGs. 13 & 20*) to create the stiffening strips or equivalent means having an axial length, greater than the collective circumferential widths of a plurality of stiffening

Art Unit: 2629

strips or equivalent means so that the loop would yield in a predictable results to accommodate the *obvious Choice of Design* of different makes, model, style, and consumers' taste, *In re Schreiber*, 128 F.3d 1473, 44 USPQ2d 1429 (Fed. Cir. 1997).

**Oberg's** rotatable belts or bands **18** are made of *relatively non-extensible material*, however, **Oberg** does not explicitly disclose that the relatively non-extensible material includes fabric.

It is reasonably pertinent to the particular problem with which the applicant was concerned (i.e. *determining the movement of an input coordinate device*), **Cunningham et al.** teach that the movable belt **235** may be made of nylon *fabric* ([**0059**], [**0069**], FIG. **5**) (See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992)).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to produce **Oberg's** relatively non-extensible material belt with **Cunningham et al.** teaching of the movable belt being made of nylon *fabric to enhance user input interface by providing accurate input coordinates and/or movement of the input device*.

Regarding Claim **2**, (currently amended) **Oberg** teaches the loop according to claim 1, wherein longitudinal zones (FIG. **13**, i.e. *gaps exposed 58 between belt segments 56*) defined by and between the stiffening strips or equivalent means (Col. **6**, Ln. **15-27**, FIGs. **10-16**, i.e. *wheels 50*; Col. **6**, Ln. **58-68**, FIG. **16**, i.e. *strip 66*) have friction material on the external surface of the flexible fabric support material (Col. **6**, Ln. **58-68**, FIG. **16**, i.e. *pad 64*), and the friction elements protrude

Art Unit: 2629

away from the flexible fabric support material to a greater extent than the friction material within the longitudinal zones (*Col. 6, Ln. 58-68, FIG. 16, i.e. pad 64*).

Regarding Claim **3**, (previously presented) **Oberg** teaches the loop according to claim 1, wherein the friction elements are in the form of friction strips (*Col. 6, Ln. 58-68, FIG. 16, i.e. pad 64*) arranged above and aligned with the stiffening strips (*Col. 6, Ln. 15-27, FIGs. 10-16, i.e. wheels 50; Col. 6, Ln. 58-68, FIG. 16, i.e. strip 66*).

Regarding Claim **13**, (currently amended) **Oberg** teaches the loop according to claim 1, wherein the axial length of the stiffening strips is considerably greater than the circumferential width of the stiffening strips (*FIG. 13*).

Regarding Claim **14**, (currently amended) **Oberg** teaches the loop according to claim 13, wherein longitudinal zones defined by and between the stiffening strips have friction material on the external surface of the flexible fabric support material (*Col. 6, Ln. 58-68, FIG. 16, i.e. pad 64*), and the friction strips protrude away from the flexible fabric support material to a greater extent than the friction material within the longitudinal zones (*Col. 6, Ln. 58-68, FIG. 16, i.e. pad 64*).

Regarding Claim **15**, (currently amended) **Oberg** teaches the loop according to claim 1, wherein the friction elements are in the form of friction strips (*Col. 6, Ln. 58-68, FIG. 16, i.e. pad 64*) aligned with the stiffening strips (*Col. 6, Ln. 15-27, FIGs. 10-16, i.e. wheels 50; Col. 6, Ln. 58-68, FIG. 16, i.e. strip 66*).

Regarding Claim **18**, (currently amended) the loop means according to claim 1, wherein **Cunningham et al.** teach the flexible fabric support material is made from thin cloth (*[0059], [0069], FIG. 5*).

Regarding Claim **20**, (currently amended) **Oberg** teaches the loop according to claim 1, wherein the friction elements are formed by a coating of varying thickness on the external surface of the flexible fabric support material (*Col. 6, Ln. 58-68, FIG. 16, i.e. pad 64*).

Regarding Claim **21**, (previously presented) **Oberg** teaches a pointing device for guiding a cursor on a computer screen or the like, comprising a support having rounded edges (*Col. 3, Ln. 63-66, FIG. 4, i.e. belt segments 56*), and the loop of claim 1 trained around the rounded edges and slidably supported (*Col. 3, Ln. 66-68, Col. 4, Ln. 1, FIG. 5*) by the stiffening strips or equivalent means (*Col. 6, Ln. 15-27, FIGs. 10-16, i.e. wheels 50; Col. 6, Ln. 58-68, FIG. 16, i.e. strip 66*) on a planar central portion of the support extending between the rounded edges (*FIG. 5*).

2. Claim **10** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Oberg** (**US Patent No. 5270690**) in view of **Cunningham et al.** (**US PGPub. No. 2001/0016804**) and further in view of **Hu** (**US Patent No. 6586720**).

Regarding Claim **10**, (previously presented) **Oberg** teaches the loop according to claim 1.

However, **Oberg** does not teach that the friction material containing small reflecting particles that are separated sufficiently to give rise to individual light points on the detector chip of an optical detector.

In the same field of endeavor, **Hu** teaches the friction material containing small reflecting particles that are separated sufficiently to give rise to individual light points

Art Unit: 2629

(Col. 3, Ln. 12-24, FIGs. 4-5) on the detector chip of an optical detector (*i.e. obvious Design Choice*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine **Oberg** teaching of loop means comprising flexible support material and friction material strips with **Hu** teaching of the friction material containing small reflecting particles that are separated sufficiently to give rise to individual light points on the detector chip of an optical detector *to providing the accuracy and reliability of the pointing device*.

### ***Response to Arguments/Amendments/Remarks***

3. Claims **6** and **11-12** are canceled.
4. Claim(s) **4-5, 7-9** is/are withdrawn.
5. Claims **16, 17, and 19** are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species 2 (FIG. 4), 3 (FIG. 7), and 4 (FIG. 9) respectively, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/25/2008.
6. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.



***Conclusion***

The prior art(s) made of record and not relied upon (is)/are considered pertinent to applicant's disclosure: Rahman; Abdul W. B. A. (US Patent No. 4928093).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH T. LAM whose telephone number is (571)270-3704. The examiner can normally be reached on M-F (7:00-4:30) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Lam/  
Examiner, Art Unit 2629

/Amare Mengistu/  
Supervisory Patent Examiner, Art Unit 2629